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Worcs, DY10 4UB, United Kingdom****(51) INT CL⁵****A63B 21/078****(52) UK CL (Edition M)****A6M MAJ****(56) Documents Cited****GB 2146910 A EP 0283321 A WO 86/01735 A****(58) Field of Search****UK CL (Edition K) A6M
INT CL⁵ A63B 21/00 21/078
On-Line database : WPI****(54) Wall mounted multi-exercise cabinet**

(57) A cabinet, made of a wooden frame, with frontal panels 12, 13, and 14, 13 being a door/exercise bench opened by a T-bar 15 which is a handle/support. The cabinet houses an exercise mechanism comprising hydraulic pumps for resistance, an arm 17 for leverage, metal rods for position adjustments, a metal rod for resistance adjustment. The whole mechanism can be positioned by means of holes in the frame 23 and 24 and housed in the cabinet when not in use.

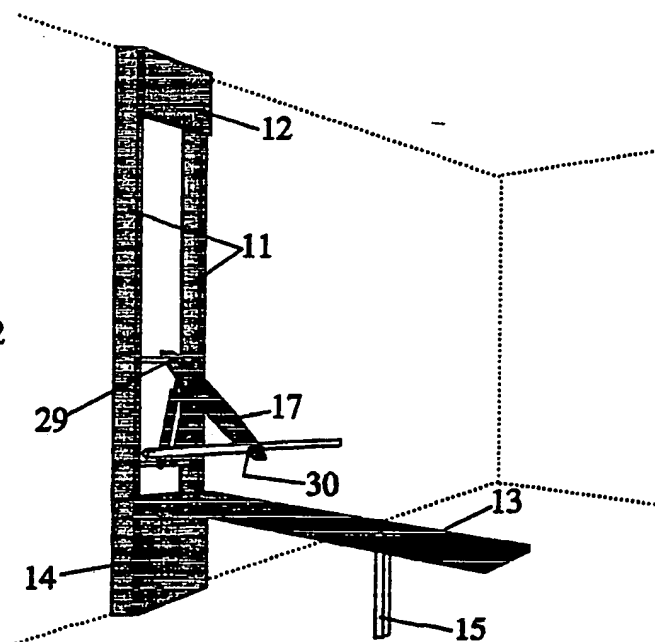
Fig 2**GB 2 268 086 A**

Fig 1

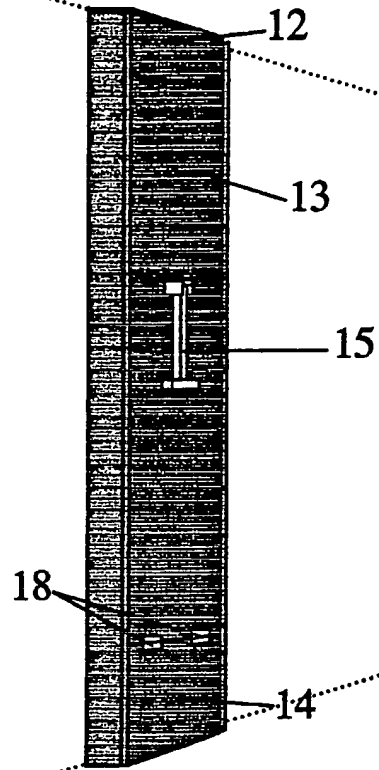


Fig 2

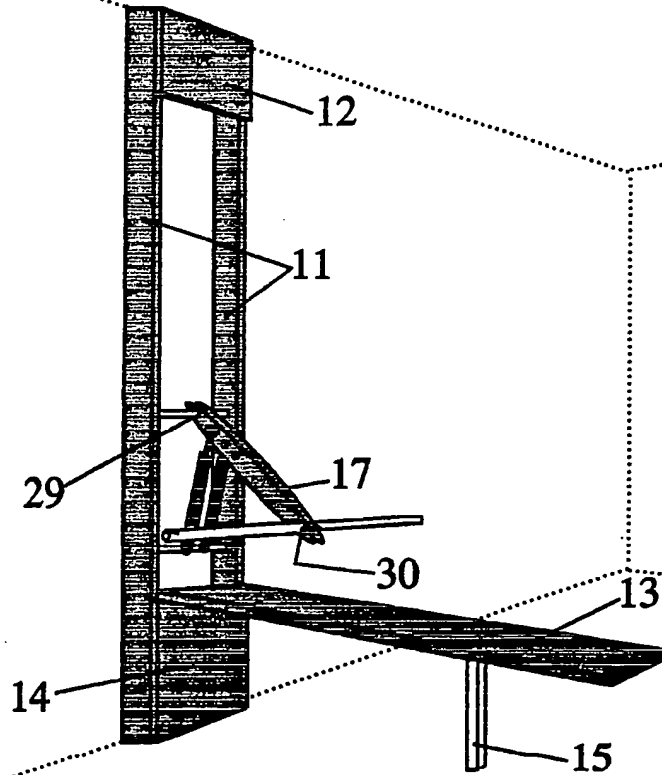


Fig 3



Fig 4



Fig 5



Side & Frontal Views

Fig 6

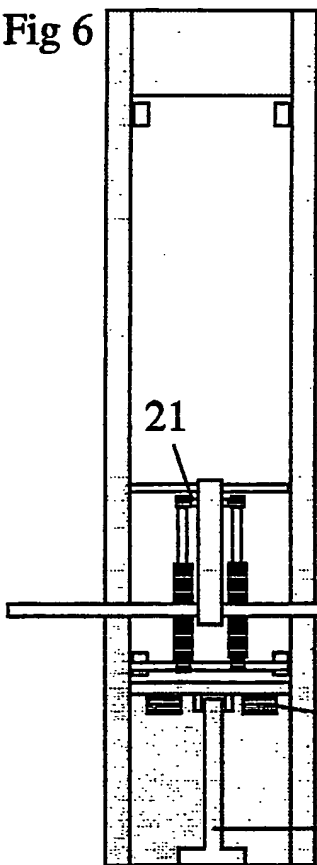


Fig 7

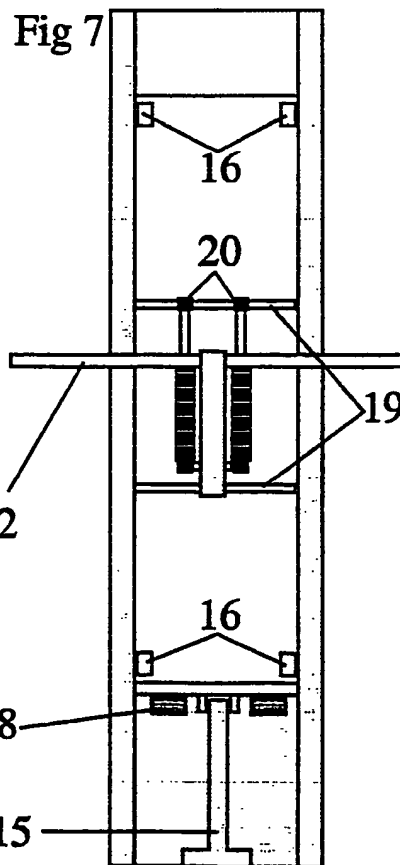
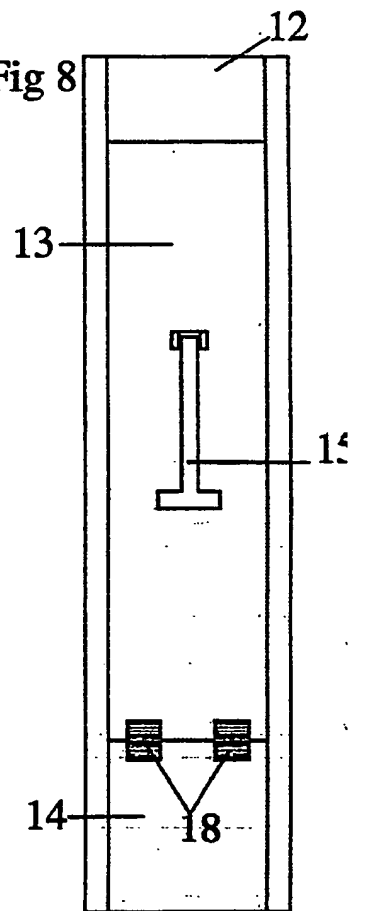
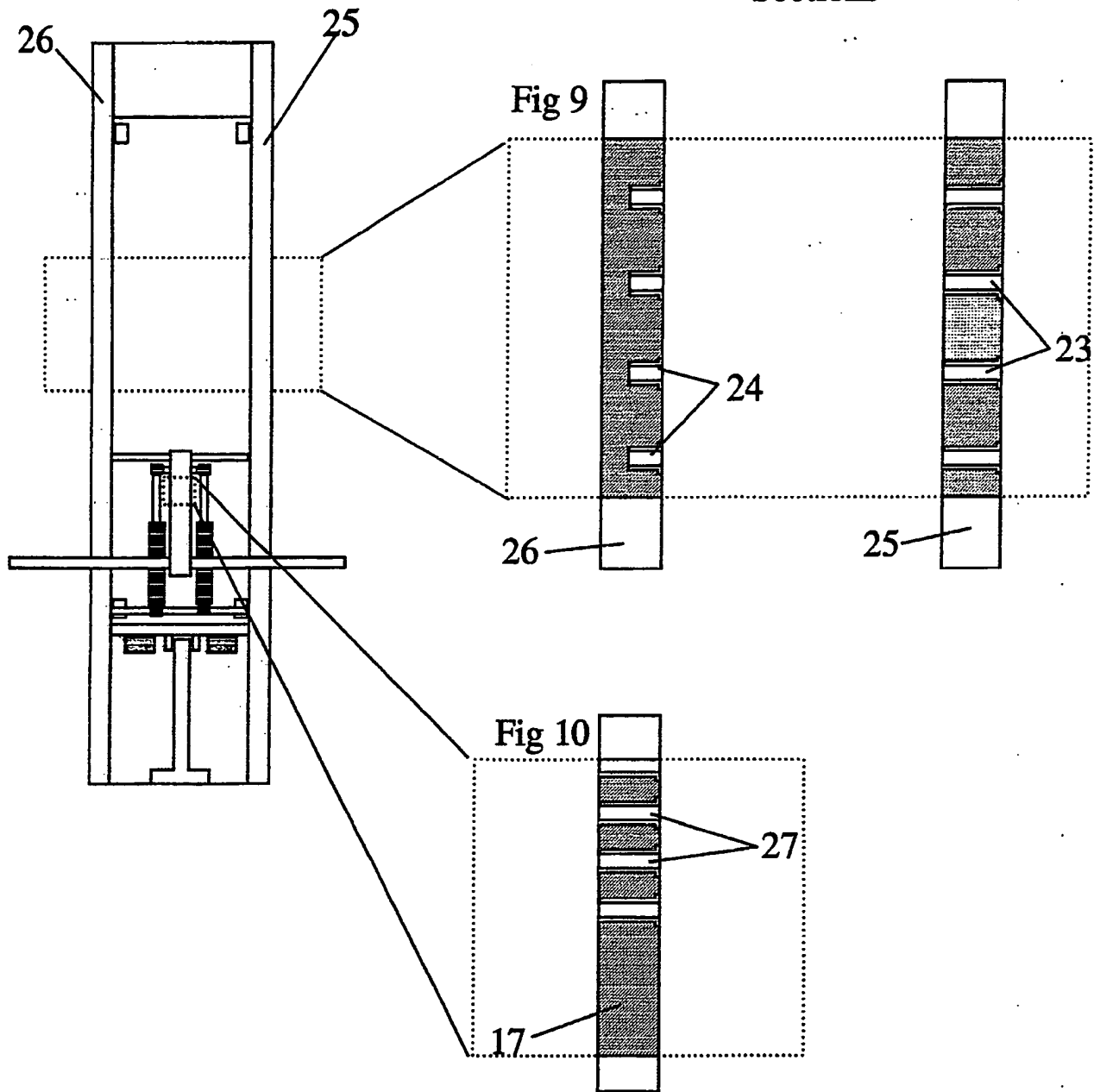


Fig 8



Sections



Wall Mounted Multi-Exercise Cabinet

This invention relates to a wall mounted multi-exercise cabinet.

Multi-exercise machines are a single apparatus using one or more forms of resistance (ie. weight & pulley mechanisms, hydraulic pumps, springs etc.), designed to incorporate as many exercise positions as possible. Shape, size, weight, and cost of machines vary greatly from large multi-gyms to compact L-shaped frames.

However, all existing multi-exercise machines do require a certain amount of permanent space (16 - 20 Sq. Ft. on avg.), and would always remain visible when not in use.

According to the present invention there is provided a wall mounted multi-exercise cabinet comprising a floor to ceiling rectangular wooden frame, three frontal panels (top : aesthetic, middle: door/bench, bottom : door/bench support), a T-bar acting as a handle for opening the cabinet door hinged to the bottom panel, which would then act as a support for the door/bench when used for exercising. Housed in the cabinet are the following: Two metal rods, a wooden arm, two hydraulic pumps, and a metal tube, all of which are part of the exercising mechanism. When in use, this mechanism can be height adjusted along the length of the cabinet frame.

A specified embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which:-

Figures 1 & 2 show in perspective, the multi-exercise cabinet in closed and open form mounted on a wall respectively;

Figures 3, 4, & 5 show closed left, closed right, and open left side views respectively;

Figures 6, 7, & 8 show open frontal view with exercise mechanism in normal position, open frontal view with exercise mechanism in inverted position, and closed frontal view respectively;

Figure 9 shows a section of the vertical struts of the cabinet frame, illustrating the holes drilled and encasing hard plastic rings for ease of height adjustment of the exercise mechanism;

Figure 10 shows a section of the arm for the exercise mechanism, illustrating the holes drilled and encasing hard plastic rings for ease of adjusting the angle of the hydraulic pumps in order to increase or decrease the leverage of the arm and in turn increase or decrease resistance generated.

Referring to the drawings, the multi-exercise cabinet comprises a wooden rectangular frame 10, three frontal panels 12, 13, 14 these being of stabilizing value, door/bench, and bench support and stabilizer respectively. A T-bar 15, which acts as a handle to open the cabinet door 13 hinged by two metal hinges 18 to panel 14, and becomes a support for the workout bench. The cabinet is mounted on the wall by means of four brackets 16 as illustrated in Fig 7.

Housed in the cabinet is the exercise mechanism comprising a wooden arm 17, two metal rods 19, a single short metal rod 21, two hydraulic pumps 20, and a metal tube 22. The whole mechanism can be adjusted vertically for height by sliding the metal rods into position through the holes 23 in the right vertical strut 25 into the holes 24 in the left vertical strut 26, as illustrated in Fig 9. The hydraulic pumps have rings on either end through which one of the metal rods is guided in order to hold the pumps into position. The rings on the free end of the pumps are fitted over the short metal rod 21, which can be adjusted by sliding through holes 27 along the length of the arm 17 in order to increase or decrease resistance using the principle of leverage as illustrated in Fig 10. The arm is held in position by guiding the second metal rod 19 through a hole 29 in the arm. The long metal tube 22 is guided through the outer end 30 of the rod and is used as a handle bar. The hydraulic pumps and the metal tube are centred and held in position by using small metal pins not shown. The exercise mechanism is illustrated in Figs 1, 5, 6, & 7.

When not in use, the metal tube is taken out of the arm and placed in the cabinet. The pumps are released from the short metal rod 21 and rotated inward. The arm, now free, is also rotated inward. The bench is then rotated upward, closing to form a cabinet.

CLAIMS

1 A wall mounted multi-exercise cabinet comprising a wooden frame providing means for verticle level adjustment, a hinged door/exercise bench, a T-bar acting as door handle/bench support, two hydraulic pumps attached to an arm which during use provides resistance on the principle of increased or decreased leverage, two postion adjustable metal rods to which the arm and the hydraulic pumps are attached. These (pumps, rods, and arm) being the exercise mechanism housed in the cabinet when not in use.

2 A wall mounted multi-exercise cabinet as claimed in claim 1 wherein verticle level adjustment is provided by holes drilled in the left and right verticle struts of the wooden frame.

3 A wall mounted multi-exercise cabinet as claimed in claim 1 or claim 2 wherein the exercise mechanism as defined in claim 1 is position adjustable by sliding rods through the holes in the wooden frame at desired level.

4 A wall mounted multi-exercise cabinet as claimed in claim 3 wherein position of the arm and hydraulic pumps can be inverted in order to provide different exercise positions.

5 A wall mounted multi-exercise cabinet as claimed in claim 1 wherein the cabinet door is hinged to a bottom panel and becomes an exercise bench when in use.

6 A wall mounted multi-exercise cabinet as claimed in claim 5 wherein the cabinet door is opened by a T-bar acting as handle and would become the support for the exercise bench.

7 A wall mounted multi-exercise cabinet as claimed in any preceding claim, wherein the cabinet is secured to the wall by means of four metal brackets as illustrated in Fig 7 of the accompanying drawings.

8 A wall mounted multi-exercise cabinet substantially as described herein with referenceto Figures 1 - 10 of the accompanying drawings.

Amendments to the claims have been filed as follows

- 4 -

CLAIMS

- 1 A wall mounted wooden cabinet comprising, a hinged door/exercise bench, a T bar acting as door handle/bench support, housing a multi - exercise mechanism which provides a form of resistance and is attached to two vertically-position adjustable metal rods, the benefit being an aesthetic wooden cabinet when exercise mechanism is not in use.
- 2 A wall mounted multi-exercise cabinet as claimed in claim 1 wherein verticle level adjustment is provided by holes drilled in the left and right verticle struts of the wooden cabinet.
- 3 A wall mounted multi-exercise cabinet as claimed in claim 1 or claim 2 wherein the exercise mechanism is position adjustable by sliding rods through the holes in the wooden cabinet at the desired level.
- 4 A wall mounted multi-exercise cabinet as claimed in claim 3 wherein position of the multi - exercise mechanism can be inverted in order to provide different exercise positions.
- 5 A wall mounted multi-exercise cabinet as claimed in claim 1 wherein the cabinet door is hinged to a bottom panel and becomes an exercise bench when in use.
- 6 A wall mounted multi-exercise cabinet as claimed in claim 5 wherein the cabinet door is opened by a T bar acting as handle and would become the support for the exercise bench.
- 7 A wall mounted multi-exercise cabinet as claimed in any preceeding claim, wherein the cabinet is secured to the wall by means of four metal brackets as illustrated in Fig 7 of the accompanying drawings.
- 8 A wall mounted multi-exercise cabinet substantially as described herein with reference to Figures 1 - 10 of the accompanying drawings.

Patents Act 1977
Examiner's report to the Comptroller under
Section 17 (The Search Report)

-5-

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Relevant Technical fields

(i) UK Cl (Edition _K) A6M

(ii) Int.Cl (Edition 5) A63B 21/00, 21/078

Search Examiner

A T BLUNT

Databases (see over)

(i) UK Patent Office

(ii) ONLINE DATABASE: WPI

Date of Search

27 JULY 1992

Documents considered relevant following a search in respect of claims 1 TO 8

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2146910 A (McNULTY)	1-8
X, Y	EP 0283321 A (ROLLINSON)	1, 2-8
X	WO 86/01735 A (RORABAUGH)	1

Category	Identity of document and relevant passages - 6 -	Relevant to claim(s)

Categories of documents

X: Document indicating lack of novelty or of inventive step.

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